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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,412	07/05/2001	Neal R. Cutler	CUTLER-06326	3297

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EXAMINER	
JOYNES, ROBERT M	
ART UNIT	**PAPER NUMBER**
1615	12

DATE MAILED: 11/04/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/899,412	CUTLER, NEAL R.	
	Examiner	Art Unit	
	Robert M. Joynes	1615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 May 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9 and 13* is/are pending in the application.

4a) Of the above claim(s) *10-12,14 and 15* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9 and 13* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Receipt is acknowledged of applicant's Amendment and Responses filed on May 27, 2003 and August 8, 2003.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Caruso (US 6043244). Caruso teaches a method treating migraines wherein dihydroergotamine is administered with an antimigraine-potentiating amount of an NMDA receptor antagonist (Col. 3, lines 14-58). Caruso contemplates all modes of administration (Col. 6, lines 3-67; Col. 7, lines 1-31). Specifically, sublingual administration is taught in the form of a tablet, drop or lozenge (Col. 6, lines 25-28). Sprays and pastes or gels are also taught by Caruso (Col. 6, lines 30-35, 63-65). The oral tablets further comprise additives such as calcium carbonate, calcium phosphate or kaolin (Col. 6, lines 18-24). Additional active agents may be added to the composition (Col. 8, lines 12-27). Caruso recites DHE and its pharmaceutically acceptable salts (Col. 3, lines 14-40). Therefore, Caruso teaches all the limitations of the instant claim.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Plachetka (US 5872145). Plachetka teaches a method of treating migraines wherein an effective amount of a 5-HT agonist and NSAID are administered to a patient (Col. 13, Claim 1;

Col. 3, lines 64-67). The 5-HT agonists include all types of 5-HT agonists, more specifically, 5-HT1, 5-HT1B and 5-HT1D agonists (Col. 8, lines 1-20). Dihydroergotamine mesylate is one such example (Col. 8, lines 1-20). The combination of active agents can be administered parenterally, enterally and topically and can be administered with appropriate carrier as well as other pharmaceutically acceptable excipients (Col. 12, line 31 – Col. 13, line 19). The dosage form can be in the form of quick-dissolve tablet (Col. 13, Claim 17). Therefore, Plachetka teaches all the limitations of the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 4-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Caruso (US 6043244). Caruso teaches a method treating migraines wherein dihydroergotamine is administered with an antimigraine-potentiating amount of

an NMDA receptor antagonist (Col. 3, lines 14-58). Caruso contemplates all modes of administration (Col. 6, lines 3-67; Col. 7, lines 1-31). Specifically, sublingual administration is taught in the form of a tablet, drop or lozenge (Col. 6, lines 25-28). Sprays, pastes or gels are also taught by Caruso (Col. 6, lines 30-35, 63-65). The oral tablets further comprise additives such as calcium carbonate, calcium phosphate or kaolin (Col. 6, lines 18-24). Additional active agents may be added to the composition (Col. 8, lines 12-27). Caruso recites DHE and its pharmaceutically acceptable salts (Col. 3, lines 14-40). It is the position of the Examiner that any form of DHE, the salt or the base would be acceptable for the formulation of Caruso.

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to formulate a sublingual composition that contains DHE and a pH-adjusting agent. Elimination of an ingredient as well as its function does not impart patentability to a well-known formulation in the absence of said ingredient.

One of ordinary skill in the art would have been motivated to do this to provide a method of treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claims 1, 2, 4-9 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plachetka (US 5872145). Plachetka teaches a method of treating migraines wherein an effective amount of a 5-HT agonist and NSAID are administered to a patient (Col. 13, Claim 1; Col. 3, lines 64-67). The 5-HT agonists include all types

of 5-HT agonists, more specifically, 5-HT1, 5-HT1B and 5-HT1D agonists (Col. 8, lines 1-20). Dihydroergotamine mesylate is one such example (Col. 8, lines 1-20). The combination of active agents can be administered parenterally, enterally and topically and can be administered with appropriate carrier as well as other pharmaceutically acceptable excipients (Col. 12, line 31 – Col. 13, line 19). The dosage form can be in the form of quick-dissolve tablet (Col. 13, Claim 17).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to formulate a sublingual composition that contains DHE and a pH-adjusting agent. Elimination of an ingredient as well as its function does not impart patentability to a well-known formulation in the absence of said ingredient.

One of ordinary skill in the art would have been motivated to do this to provide a method of treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Caruso or Plachetka in combination with Azria et al. (US 4758423) or Plachetka et al. (US 6495535, hereinafter '535). The teachings of Caruso and Plachetka are discussed above. Neither reference teaches that the DHE is in the base form. It is the position of the Examiner that any form of DHE would be effective in treating migraines. No criticality is seen in DHE being in the form of a base. Applicants have not shown any unexpected results from the base form. Further, the secondary references teach that

the base form of DHE is known to be administered for treating migraines (Azria, Col. 3, lines 32-39; Plachetka, Col. 4, lines 1-4).

At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use any form of DHE is a method of treating migraines, including the base form.

One of ordinary skill in the art would have been motivated to do this to provide a method treating migraines that is effective and achieves the effect in a short amount of time to bring quick and direct relief to the host.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments filed May 27, 2003 have been fully considered but they are not persuasive. Applicants argue that the prior art cannot anticipate the instant claims because the prior art contains more than one active agent. While this may be true for all claims except Claim 9, Claim 9 recites a second active agent and therefore remains anticipated by the prior art of record.

Applicants further argue that the prior art does not teach the base of DHE as the active agent. The Examiner would like to refer to new rejection regarding this argument. The secondary references show that it is known in the art to use either the free base of the drug or any acceptable salt thereof for administration to a patient. Therefore, applicants' arguments are found unpersuasive.

Conclusion

Due to the new grounds for rejection, this action is deemed non-final.

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Joynes whose telephone number is (703) 308-8869. The examiner can normally be reached on Mon.-Thurs. 8:30 - 6:00, alternate Fri. 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman K. Page can be reached on (703) 308-2927. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1235.

Robert M. Joynes
Patent Examiner
Art Unit 1615
October 29, 2003

THURMAN K. PAGE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600